# Data Acquisition Setup for the Hadron and Muon Monitors

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# The Front End: NMAAT

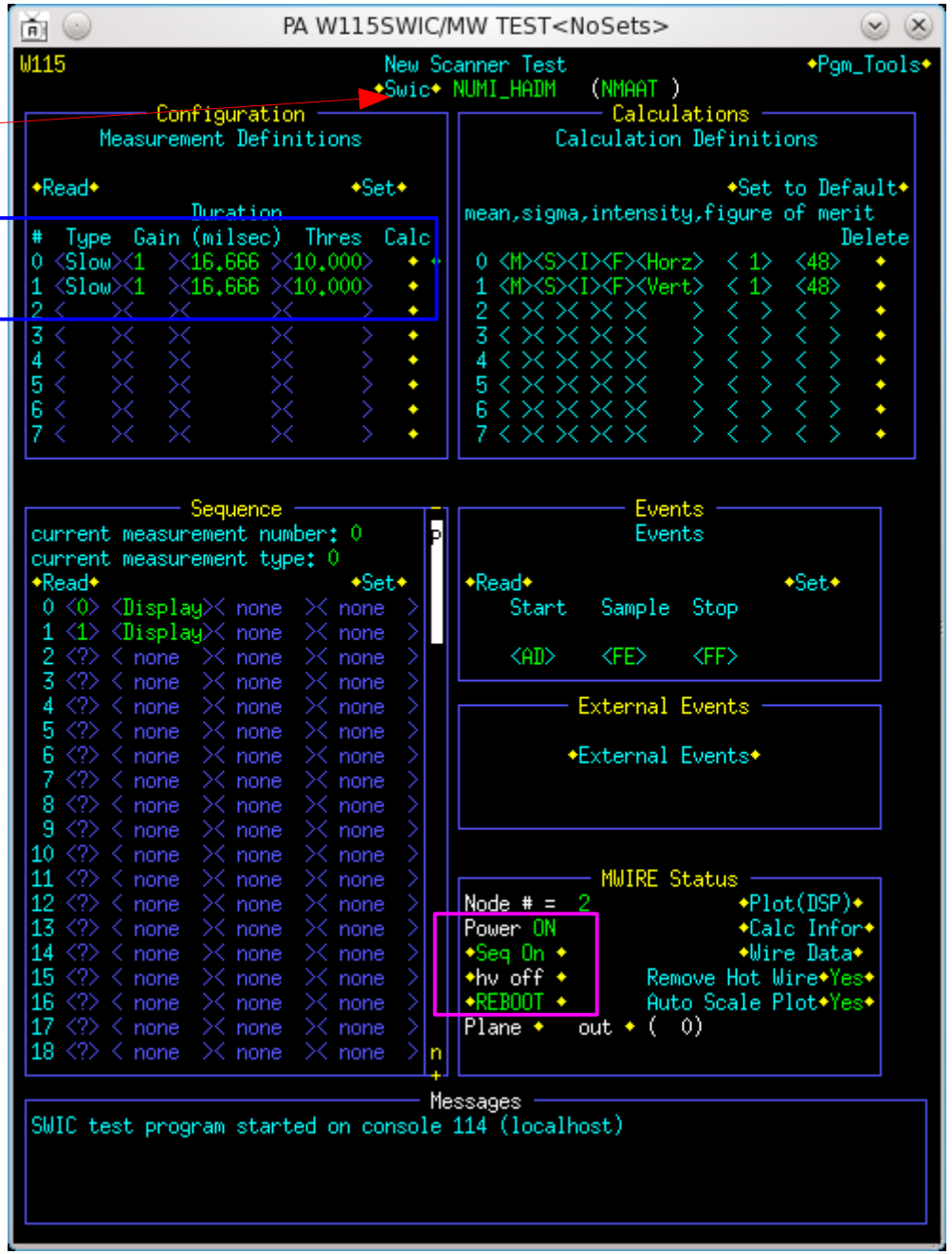
- The swic scanners for the hadron and muon monitors and the gas calibration chambers share the same front end.
- The Front End for the Hadron Muon Monitors and Gas Calibration chambers is NMAAT.
- To see the status (uptime) of the front end go to page D31. Click on “Select”. A box pops up, click on “System” and then on “No more”. Then the page should look like the one shown here.
- For information about the front end click on VME in the NMAAT line here.


## REBOOTING THE FRONT END

- To REBOOT the front end click on VME in the NMAAT line here.
- A box pops up. Click on “Reboot”. A box pops up. Enter a reason for the reboot.

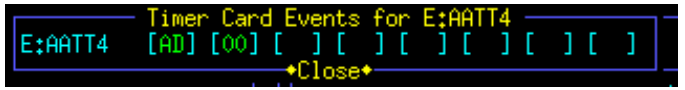
# Hadron Monitor SWIC Scanner

- The swic scanner for the hadron monitor is NUMI_HADM and can be accessed via page W115.
- Go to page W115, click “Swic”. A box pops up, scroll down and click on NUMI_HADM. The page will then look like the one shown here.
- The swic scanner is taking data when the Power is “ON” and the VME sequence is “ON”, designated by “Seq On”. If this says “Seq Off”, turn the sequence on by clicking. (The hv may say that it is “on” or “off”, either is fine, this doesn't matter.) By clicking on the REBOOT the swic scanner may be rebooted, this does not reboot the front end or any other swic scanner other than this one.
- The Measurement definitions must be set exactly as shown here. If the settings are different set them to the values shown here. Click on the “Type” entry, toggle it (by continuously clicking until “Slow” appears. Click on “Set” to set the value. Enter all other values by hand and click “Set” after each entry.



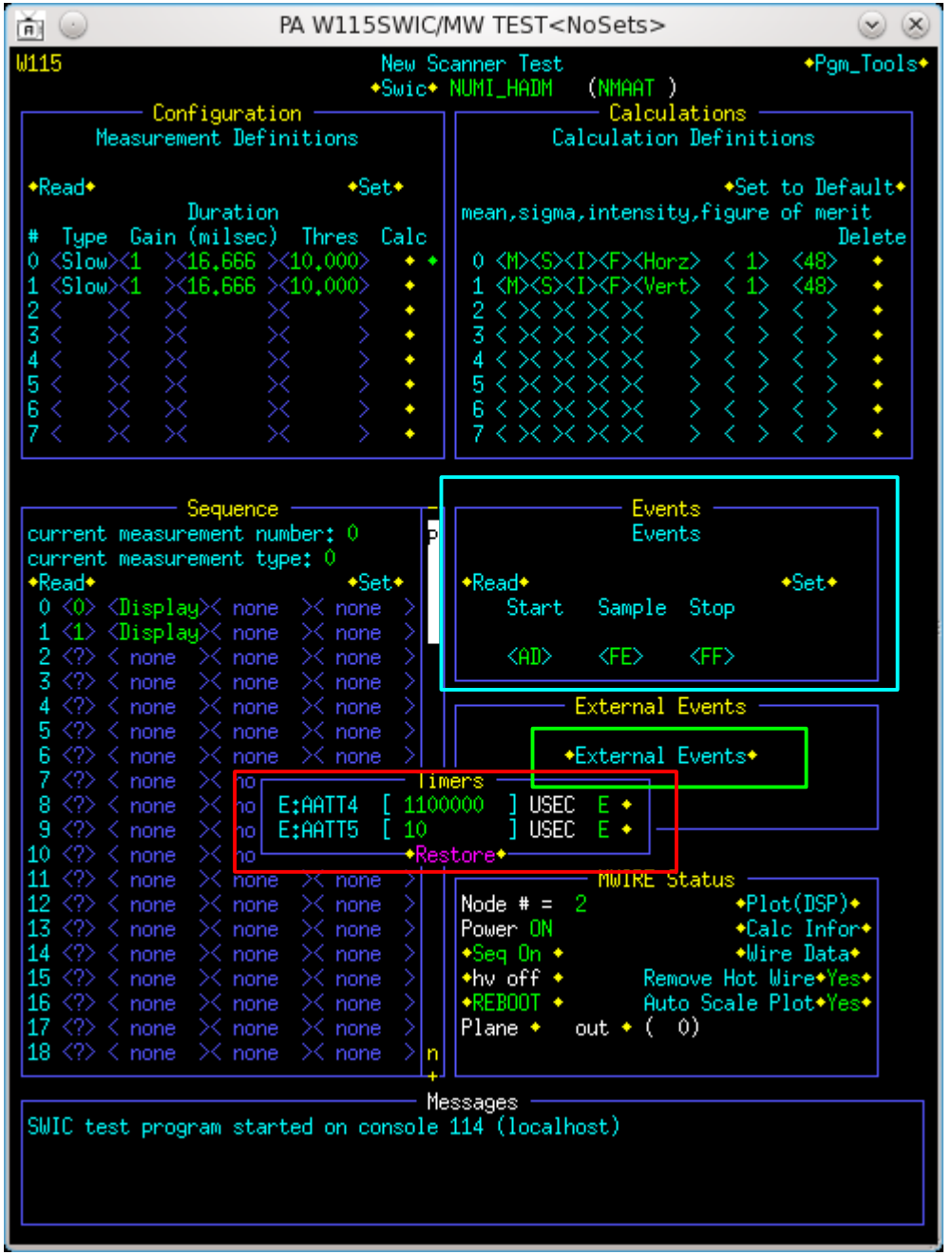
# Hadron Monitor SWIC Scanner (contd.)

- The Events must be set as shown here. FE designates the use of External Events.
- Check that the External Events are set correctly....Clicking on “External Events” pops up this window. Check that the settings are the same as shown here.
- E:AATT4 and E:AATT5 are 2 different timer cards. The timer delays are set by hand, after entering the digits press enter on the keyboard. If the “E” is a “D” this means that the timer card is disabled. Enable it by clicking on the “D”; the “D” will turn into an “E”.
- Check that the events in the timer card are set correctly.....Click the ◆. A window pops up that looks like this for E:AATT4



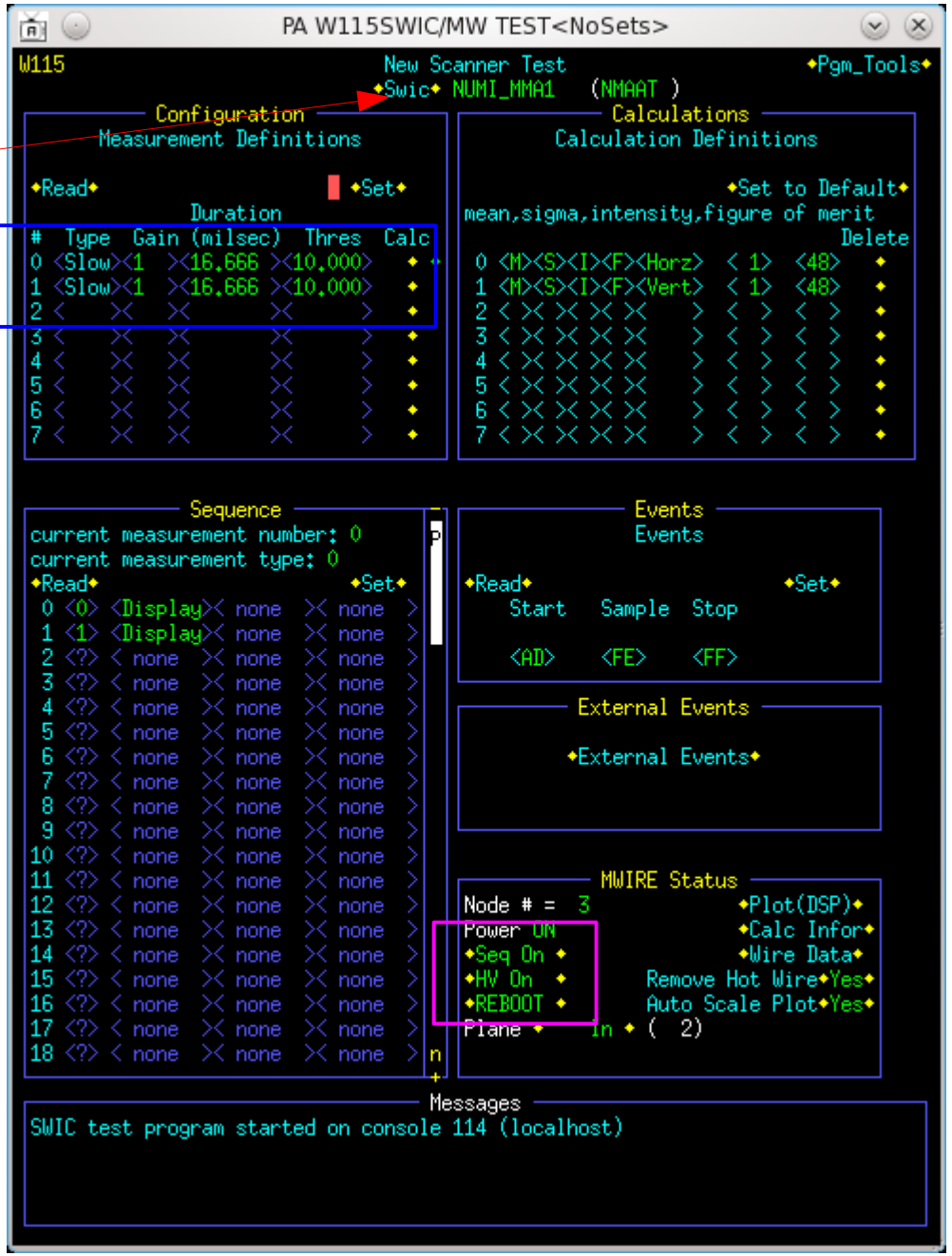

- And this for E:AATT5


- E:AATT4 has AD as the trigger event and E:AATT5 has A9 as the trigger event. If need be, enter the proper event by hand and then press enter and then click “Close”.



# Muon Monitor 1 SWIC Scanner

- The swic scanner for the hadron monitor is NUMI_MMA1 and can be accessed via page W115.
- Go to page W115, click “Swic”. A box pops up, scroll down and click on NUMI_MMA1. The page will then look like the one shown here.
- The swic scanner is taking data when the Power is “ON” and the VME sequence is “ON”, designated by “Seq On”. If this says “Seq Off”, turn the sequence on by clicking. (The hv may say that it is “on” or “off”, either is fine, this doesn't matter.) By clicking on the REBOOT the swic scanner may be rebooted, this does not reboot the front end or any other swic scanner other than this one.
- The Measurement definitions must be set exactly as shown here. If the settings are different set them to the values shown here. Click on the “Type” entry, toggle it (by continuously clicking until “Slow” appears. Click on “Set” to set the value. Enter all other values by hand and click “Set” after each entry.

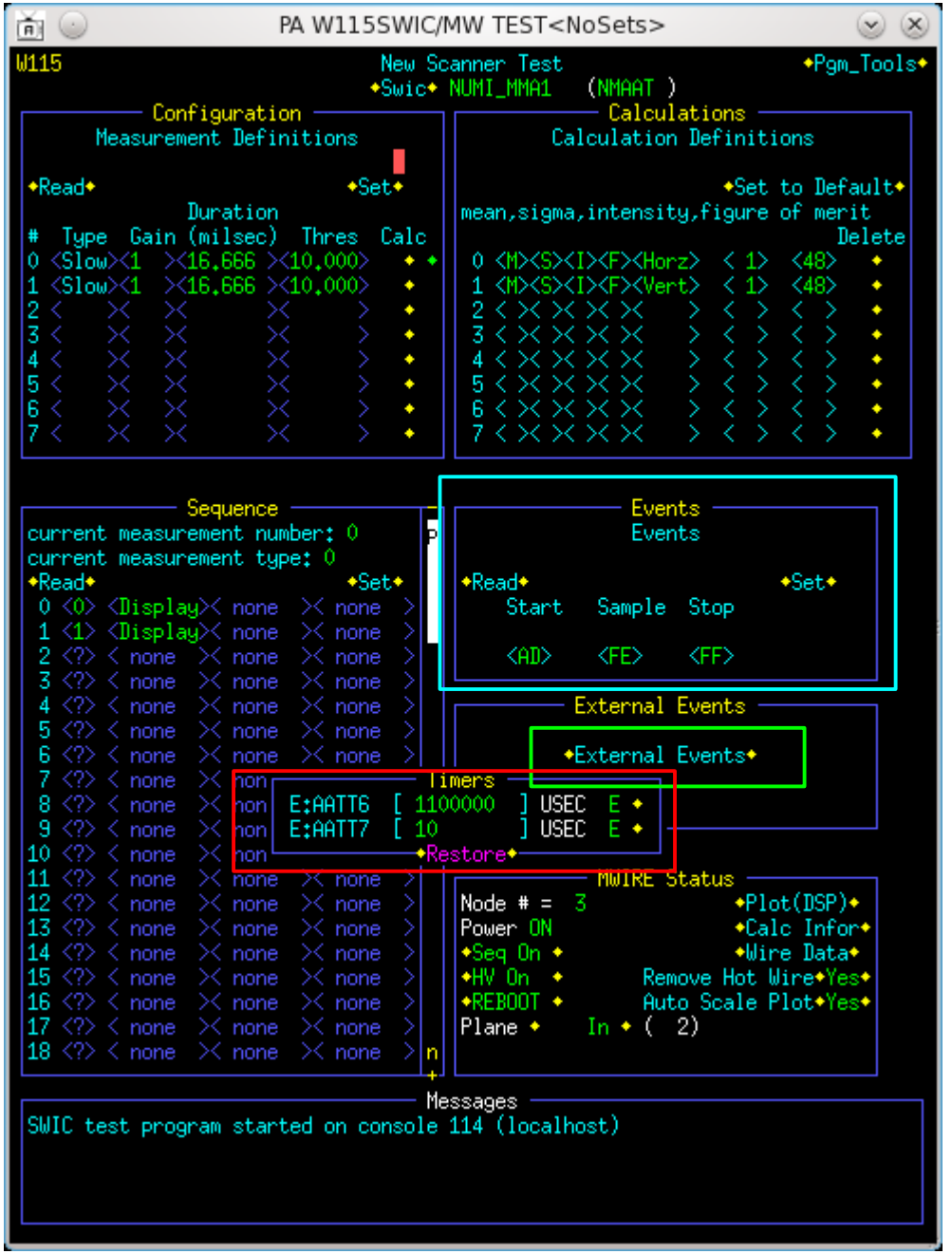


# Muon Monitor 1 SWIC Scanner (contd.)

- The Events must be set as shown here. FE designates the use of External Events.
- Check that the External Events are set correctly....Clicking on “External Events” pops up this window. Check that the settings are the same as shown here.
- E:AATT6 and E:AATT7 are 2 different timer cards. The timer delays are set by hand, after entering the digits press enter on the keyboard. If the “E” is a “D” this means that the timer card is disabled. Enable it by clicking on the “D”; the “D” will turn into an “E”.
- Check that the events in the timer card are set correctly.....Click the ◆. A window pops up that looks like this for E:AATT6

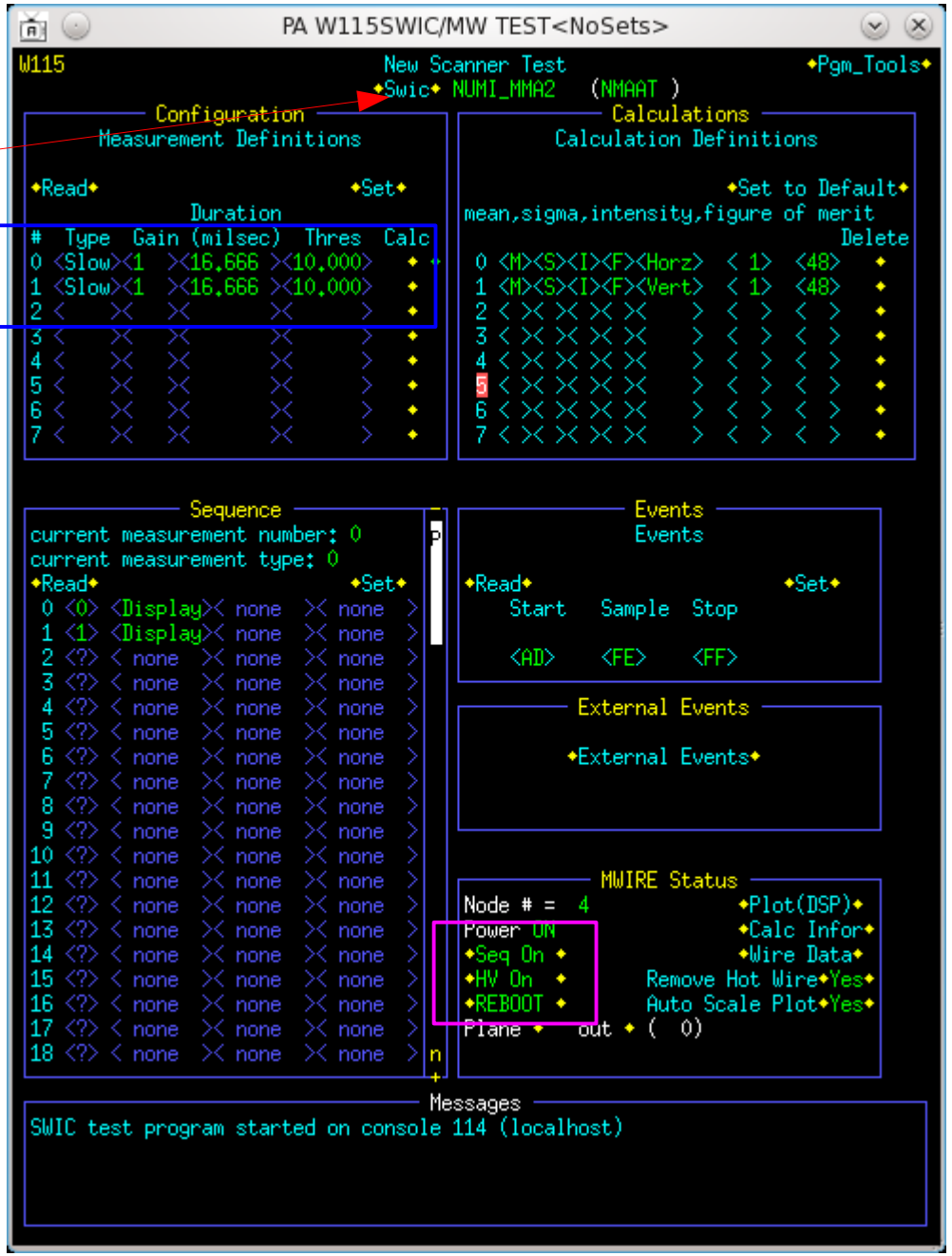

- And this for E:AATT7


- E:AATT6 has AD as the trigger event and E:AATT7 has A9 as the trigger event. If need be, enter the proper event by hand and then press enter and then click “Close”.



# Muon Monitor 2 SWIC Scanner

- The swic scanner for the hadron monitor is NUMI_MMA2 and can be accessed via page W115.
- Go to page W115, click “Swic”. A box pops up, scroll down and click on NUMI_MMA2. The page will then look like the one shown here.
- The swic scanner is taking data when the Power is “ON” and the VME sequence is “ON”, designated by “Seq On”. If this says “Seq Off”, turn the sequence on by clicking. (The hv may say that it is “on” or “off”, either is fine, this doesn't matter.) By clicking on the REBOOT the swic scanner may be rebooted, this does not reboot the front end or any other swic scanner other than this one.
- The Measurement definitions must be set exactly as shown here. If the settings are different set them to the values shown here. Click on the “Type” entry, toggle it (by continuously clicking until “Slow” appears. Click on “Set” to set the value. Enter all other values by hand and click “Set” after each entry.

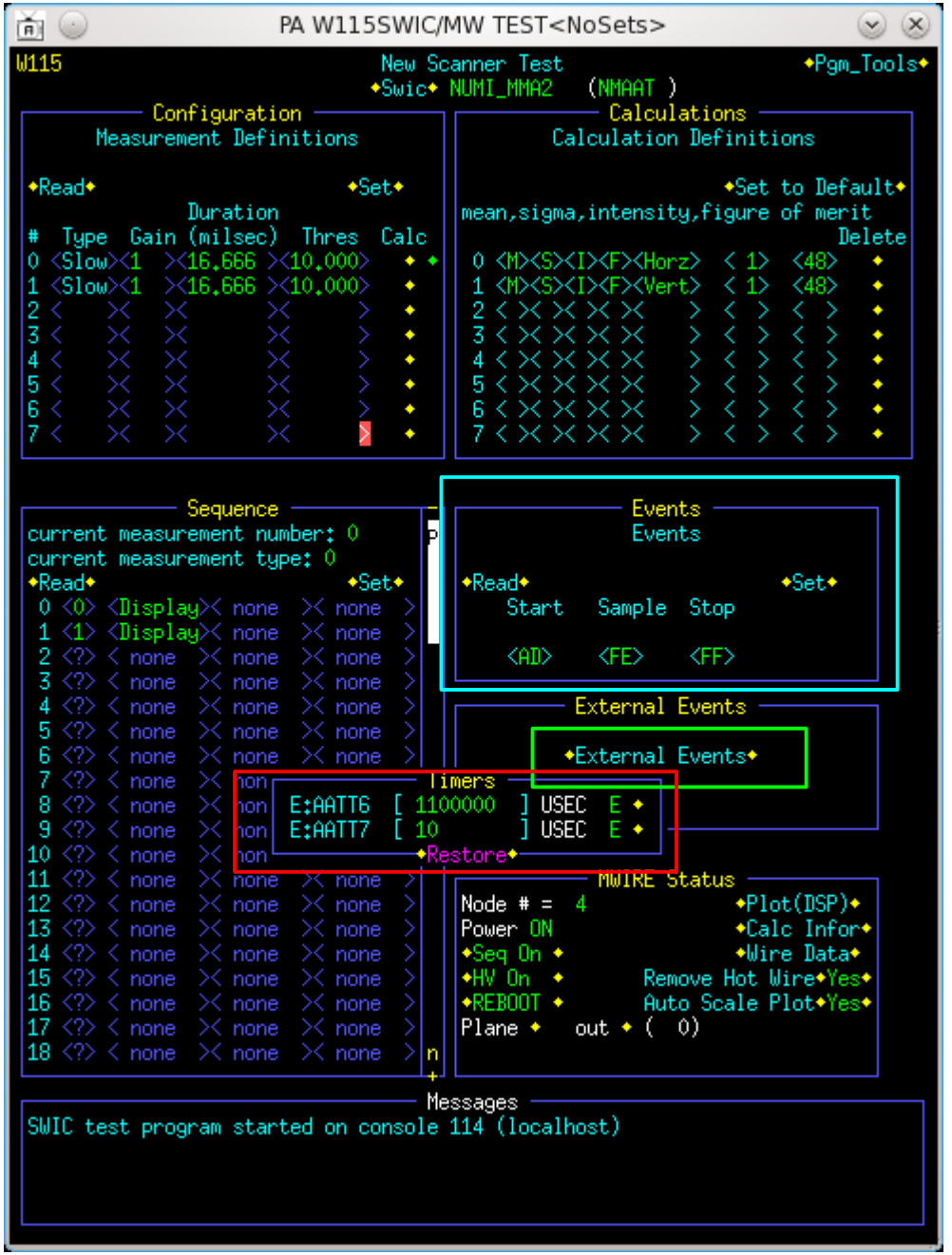


# Muon Monitor 2 SWIC Scanner (contd.)

- The Events must be set as shown here. FE designates the use of External Events.
- Check that the External Events are set correctly....Clicking on “External Events” pops up this window. Check that the settings are the same as shown here.
- E:AATT6 and E:AATT7 are 2 different timer cards. The timer delays are set by hand, after entering the digits press enter on the keyboard. If the “E” is a “D” this means that the timer card is disabled. Enable it by clicking on the “D”; the “D” will turn into an “E”.
- Check that the events in the timer card are set correctly.....Click the ◆. A window pops up that looks like this for E:AATT6

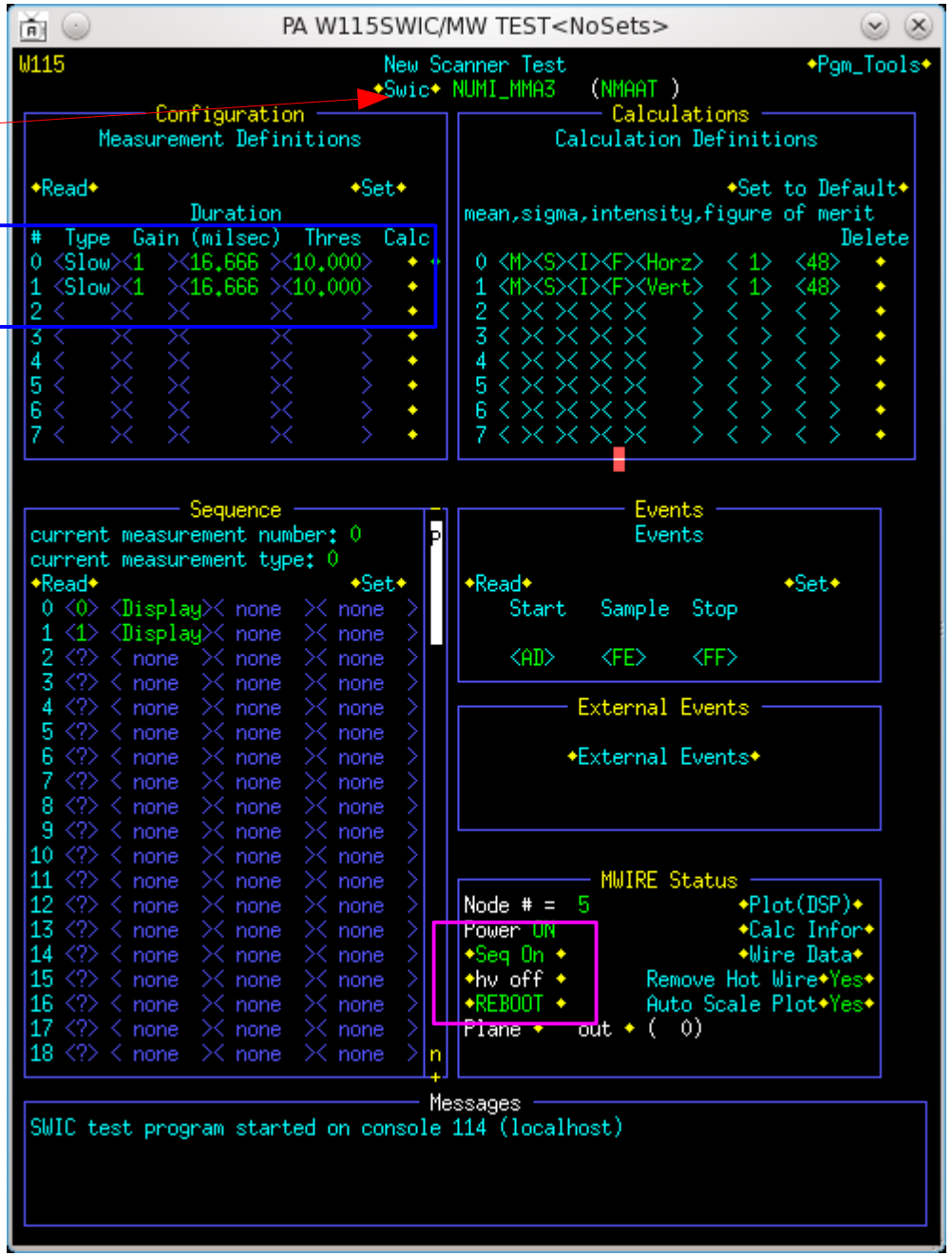

- And this for E:AATT7


- E:AATT6 has AD as the trigger event and E:AATT7 has A9 as the trigger event. If need be, enter the proper event by hand and then press enter and then click “Close”.



# Muon Monitor 3 SWIC Scanner

- The swic scanner for the hadron monitor is NUMI_MMA3 and can be accessed via page W115.
- Go to page W115, click “Swic”. A box pops up, scroll down and click on NUMI_MMA3. The page will then look like the one shown here.
- The swic scanner is taking data when the Power is “ON” and the VME sequence is “ON”, designated by “Seq On”. If this says “Seq Off”, turn the sequence on by clicking. (The hv may say that it is “on” or “off”, either is fine, this doesn't matter.) By clicking on the REBOOT the swic scanner may be rebooted, this does not reboot the front end or any other swic scanner other than this one.
- The Measurement definitions must be set exactly as shown here. If the settings are different set them to the values shown here. Click on the “Type” entry, toggle it (by continuously clicking until “Slow” appears. Click on “Set” to set the value. Enter all other values by hand and click “Set” after each entry.

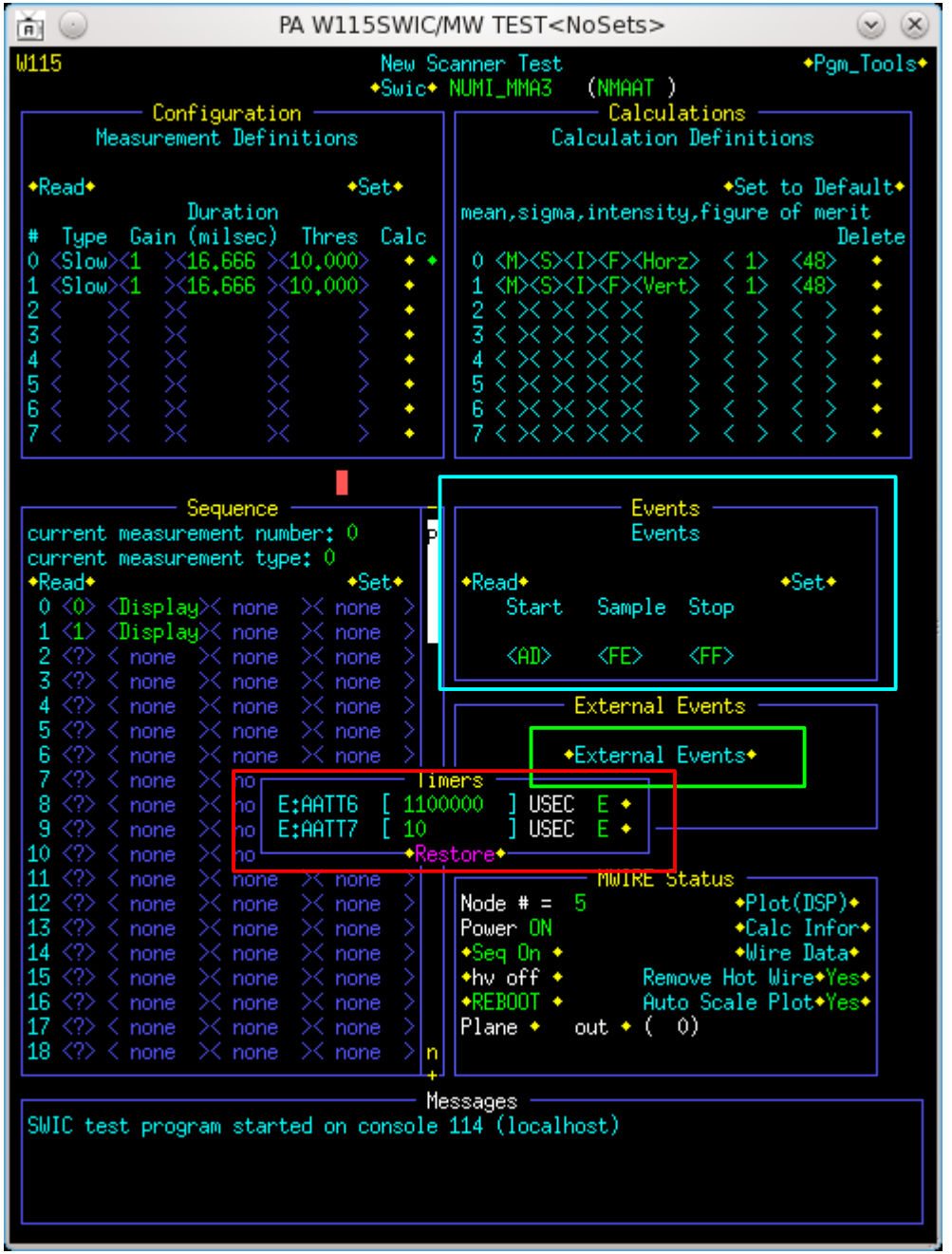


# Muon Monitor 3 SWIC Scanner (contd.)

- The Events must be set as shown here. FE designates the use of External Events.
- Check that the External Events are set correctly....Clicking on “External Events” pops up this window. Check that the settings are the same as shown here.
- E:AATT6 and E:AATT7 are 2 different timer cards. The timer delays are set by hand, after entering the digits press enter on the keyboard. If the “E” is a “D” this means that the timer card is disabled. Enable it by clicking on the “D”; the “D” will turn into an “E”.
- Check that the events in the timer card are set correctly.....Click the ◆. A window pops up that looks like this for E:AATT6

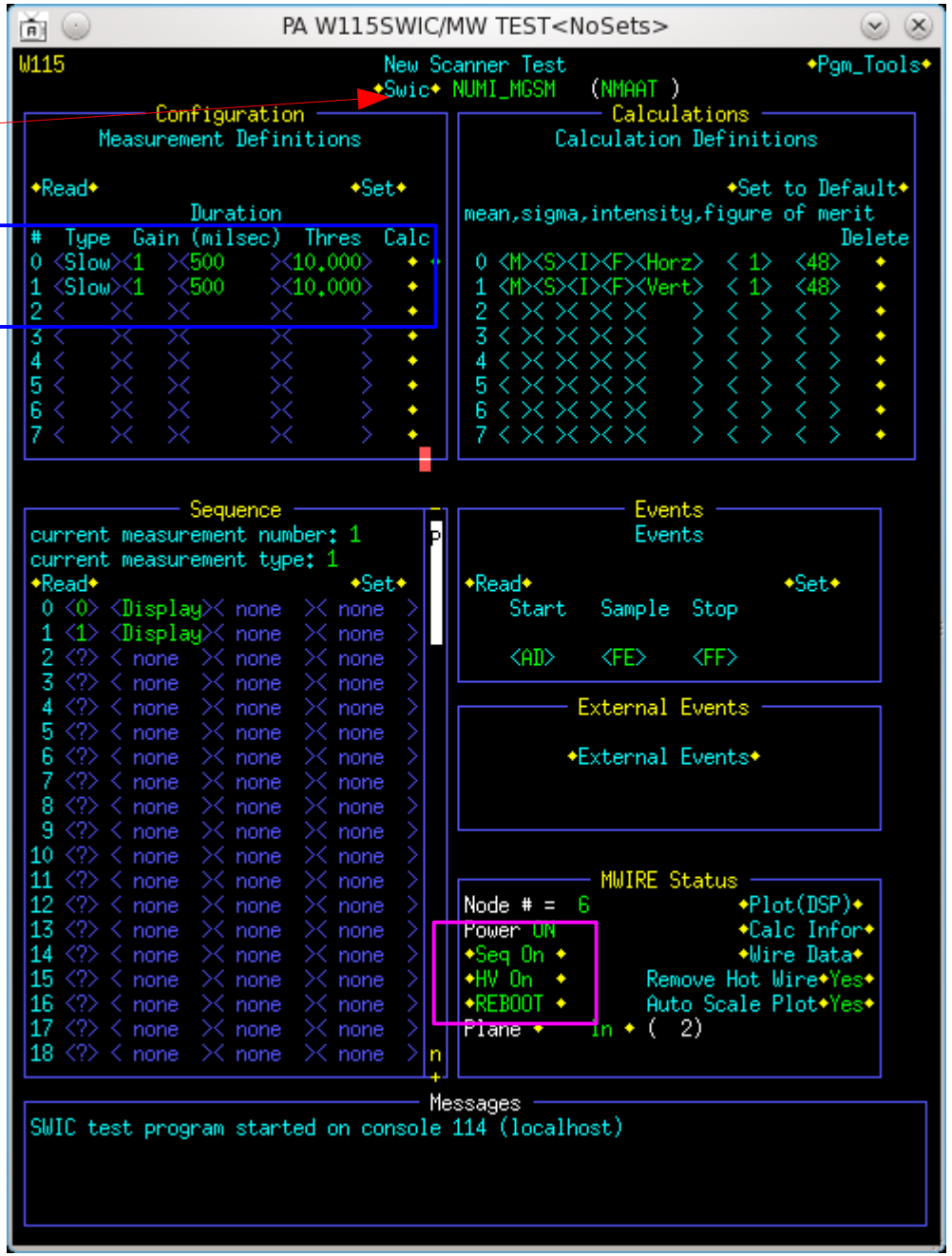

- And this for E:AATT7


- E:AATT6 has AD as the trigger event and E:AATT7 has A9 as the trigger event. If need be, enter the proper event by hand and then press enter and then click “Close”.



# Gas Calibration SWIC Scanner

- The swic scanner for the hadron monitor is NUMI_MGSM and can be accessed via page W115.
- Go to page W115, click “Swic”. A box pops up, scroll down and click on NUMI_MGSM. The page will then look like the one shown here.
- The swic scanner is taking data when the Power is “ON” and the VME sequence is “ON”, designated by “Seq On”. If this says “Seq Off”, turn the sequence on by clicking. (The hv may say that it is “on” or “off”, either is fine, this doesn't matter.) By clicking on the REBOOT the swic scanner may be rebooted, this does not reboot the front end or any other swic scanner other than this one.
- The Measurement definitions must be set exactly as shown here. If the settings are different set them to the values shown here. Click on the “Type” entry, toggle it (by continuously clicking until “Slow” appears. Click on “Set” to set the value. Enter all other values by hand and click “Set” after each entry.



# Gas Calibration SWIC Scanner (contd.)

- The Events must be set as shown here. FE designates the use of External Events.
- Check that the External Events are set correctly....Clicking on “External Events” pops up this window. Check that the settings are the same as shown here.
- E:AATT2 and E:AATT3 are 2 different timer cards. The timer delays are set by hand, after entering the digits press enter on the keyboard. If the “E” is a “D” this means that the timer card is disabled. E:AATT3 is not used. Only E:AATT2 should be enabled, “E”. Enable it by clicking on the “D”; the “D” will turn into an “E”.
- Check that the events in the timer card are set correctly.....Click the ◆. A window pops up that looks like this for E:AATT2


- E:AATT2 has AD as the trigger event. If need be, enter the proper event by hand and then press enter and then click “Close”.